

Book Review

Social, Health, and Environmental Infrastructures for Economic Growth

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Social, Health, and Environmental Infrastructures for Economic Growth
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INTRODUCTION

The importance of infrastructure for sustainable economic development is well recognized in economic theory. While physical infrastructure covering transportation, power and communication through its backward and forward linkages facilitates growth and productivity particularly in industrial and service sectors, social infrastructure including water supply, sanitation, sewage disposal, education and health, bear a direct impact on the quality of life of the population. Normally, infrastructure of both kinds has a large over-lapping interaction, thus together creating stronger impacts in overall development trajectory. Along with better availability of infrastructure, its efficient use is also called for greater improved outcome. The high transaction costs arising from inadequate and inefficient infrastructure can prevent the economy from realising its full growth potential regardless of the progress on other fronts. Normally identified as a public good, private partnership in developing infrastructure is being extensively used in several countries, especially after globalization.

Given a large literature available on linkage of physical infrastructure on productive sectors (industrial and service), the effect of physical and social infrastructure on the social sector of the economy has remained a bit under focussed. With individual and scattered studies available on the afore-mentioned area, there is a dearth of literature on the entire gamut of issues across the length and breadth of geographical span of developing countries. This book serves the purpose by discussing critical issues related to the linkage of infrastructure with health, education, environment in several Asian, African and Latin American economies. Arranged nicely in 15 chapters, the book brings in the sectors that are less discussed with the linkage of infrastructure, namely ports, electric generation and distribution etc. Most of the chapters are based on empirical evidence based research, with a strong conceptual framework.

ORGANIZATION AND CONTENT OF THE BOOK

Chapter 1 on India locates diverse infrastructural availability across Indian states. Using Principal Component Analysis to measure the infrastructural index, the study identifies significant effect on educational attainment, though the methodology remains questionable with too few observations in regression models.

Using NSSO state-level data of three rounds, Chapter 2 identifies that the infrastructure of slums appears to have been improving with overall pace of development in the country. However, the states with relatively higher shares of slum population in urban areas appear to have a decreasing trend in conditions of slums (Maharashtra, WB, Delhi, etc.). While the results are very interesting and critical for policy orientation, use of panel regression instead of pooled regression with time variable as dummy would have been more appropriate to identify the changes within states and across the periods.

Chapter 3 locates access to social infrastructure as a crucial pathway to women empowerment and overall development by a strong theoretical framework, supported by simple empirical analysis. State wise classification shows that states with matriarch societies have performed better (Goa, Meghalaya, Telengana). Cultural issues become crucial. Gender is a social construct. And hence it needs to be studied as embedded in social, economic, political and cultural milieu. Entitlements for women needs to be identified.

Using a theoretical model set up, authors in Chapter 4 find that MNREGA can improve infrastructure creation by employing labour in basic infrastructure building activities), which, in turn, can loosen up the constraint related to food supply. The supply-side constraint can be overcome through infrastructural expansions and technological and institutional innovations, which can be influenced positively by rational and far-sited planning. However, empirical results posit that works generated by MNREGA can improve the rural non-farm work participation, but cannot improve the agricultural infrastructure and hence has limited impact on overall agricultural growth rate. This study actually raises question on the quality of work under MNREGA.

Using panel data technique, Chapter 5 identifies health infrastructure measured by mortality figures, do not have enough causal impact on economic development in Sub-Saharan Africa. In fact, health infrastructure is not a necessary condition for economic development; labour force participation rate and nature of political environment jeopardise the automatic link. The study concludes that more concerted efforts on sanitation, transport, drinking water, communication and education is needed to break the Gordian Knot.

Exploring the link between health infrastructure, including that of alternative therapy systems of AYUSH and economic growth across Indian states, Chapter 6 finds that Infant Mortality Rate and Life Expectancy at Birth are strongly related to state domestic product. Bihar and UP are far more critically positioned in terms of health infrastructure which also relates them to poor growth.

Chapter 7 identifies unequal and erratic distribution of Public Health Infrastructure and Public Health expenditure across Indian states, with North Eastern states remaining at the most vulnerable situation. Need of more infrastructure spread out over the eastern region particularly is located. Not just public, but also involvement of private entrepreneurship though PPP cannot solve the crisis. The causal analysis between real per-capita public healthcare expenditure and real per-capita GSDP growth across 23 major states in India over an interval of 35 years illustrates that the variables of interest are non-stationary, and they are linked in the longer run. It rejects the null hypothesis of 'no co-integration' in the panel co-integration test and the health-led growth hypothesis gets validated in this study. Moving onto the health infrastructure index section, the calculation shows a positive relationship between health infrastructure position and health expenditure across the states in India. The variability in the index reveals the fallacy in "the one-size fits-all" strategy, which is followed for allocating funds across the states.

Chapter 8 identifies the importance of sustainable infrastructure development in India and argues that public policy must give more importance to this issue to transform the economy on a sustainable development path.

Chapter 9 focuses on regional dimensions of natural energy infrastructure available in South Asian countries. Analysing data for 40 years (1971 to 2011), the authors find heterogeneous infrastructure in energy across the countries and hence energy transfers among them can benefit all.

Analysing the failed Lagos metro line project in Nigeria, Chapter 10 locates the prime barriers to success were inadequate support infrastructure and lack of political will. Though the authors proposed privatization of railways and legislate compensation for abandoned projects, it is not clear how far this would improve the performance.

Chapter 11 posits that the electricity generation has a very strong effect on economic growth in any country. Though the loss due to inefficient transmission is high in Ghana, the econometric results suggest that Ghana has not reached the threshold where electric power transmission and distribution losses significantly deter economic growth. However, to further improve the growth rate, the distance from the source to user should be minimised. Also, the demographic characteristics of the end market (rural-urban divide) determines the degree of loss and the cost of delivery of electricity which in turn impedes economic growth in the long-run.

Chapter 12 discusses the huge shortage of infrastructure in dry land regions of Western West Bengal. In districts like Birbhum, Bankura, West Medinipur and Puruliya, infrastructure development is slow paced and it requires more efforts to conserve the natural resources.

Chapter 13 finds out the role of rural infrastructure in market penetration of consumer durables in those areas. The rural infrastructure is improving and resulting in broadening the consumers durable market, even in higher tune than the urban market.

Using time series econometrics, Chapter 14 locates strong relationship between public expenditure on agricultural infrastructure and agricultural growth in production and export in India. This result sends signal for sustained investment on agricultural infrastructure as a policy for long run economic growth propelled by agriculture sector, the one touching maximum share of population in India.

The last Chapter presents a theoretical framework and a broad-based literature survey on Mexico's port infrastructure and discusses the determinants of their competitiveness.

SUMMARY

The book is highly recommended among different stake-holders as it brings in various issues related to infrastructure development and improvement in social sector performance. Though some of the papers are based on rather weak empirical strategies to reach the conclusions, the expanse of topics covered in several economies in transition needs a fair range of readers.

READERSHIP

I think this book is a must read for researchers, scholars, development practitioners and policy makers from different developing countries.

Arijita Dutta is a full-time faculty member in Department of Economics in University of Calcutta. Her current research interest is Health Economics, quantitative Development Economics and Econometrics. She has published extensively in different national and international journals. She has been closely associated with health policy making of the state of West Bengal and has published quite a few policy documents on health care in West Bengal. She has taught in a number of European Universities and has been a visiting researcher at United Nation University Merit, Maastricht, the Netherlands in 2014 and ZEF, University of Bonn, Germany in 2017.